

REMARKS

Entry of the foregoing, reconsideration and reexamination of the above-identified application in light of the remarks which follow are respectfully requested.

Amendments and Objection

Claims 30-44 are now pending in the application. Claim 30 has been amended to recite that the adhesive-carrying porous fabric has a porosity greater than that of the backing substrate. Support for this amendment may be found at the very least at page 3, lines 17-18. No new matter is added by this amendment.

The errors in numbering claims 35-37 are noted and have been corrected by this amendment. The objection to the claims in this regard is believed to now be moot. Withdrawal of the objection is respectfully requested and believed to be in order.

Rejection Under 35 U.S.C. §102(b) over Murphy

Claims 30 and 36 have been rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Murphy et al, U.S. Patent No. 5,762,623. This rejection is respectfully traversed.

According to the Official Action, “Murphy teaches a laminated tape/bandage comprising a layer of transversely spaced longitudinally extending elastic strands between a pair of [sic] outer layers, at least one of which is a warp-knitted (weft insertion) fabric oriented with the knit yarns extending longitudinally and generally parallel to the orientation of the elastic strands (abstract).” Murphy is also said to teach the use of a binder to laminate three layers and that the binder impregnates all three layers. A layer of porous elastic strands are equated with the porous backing substrate and the warp-knitted (weft insertion) fabric of Murphy is said to be porous and impregnated or laminated with the adhesive binder. Further, Murphy is said to teach that the preferred warp-knitted (weft insertion) fabric has a thread count of 18*16.

Comparing the teachings of Murphy to the claims 30 and 36, it is clear that Murphy fails to disclose or suggest the invention as claimed. Claims 30 and 36 recite as follows:

30. (new) An article comprising:
a porous backing substrate; and
a porous adhesive-carrying fabric applied to the backing substrate, wherein said adhesive-carrying porous fabric has a thread count in at least one direction that is not more than 18 yarns per inch and has a porosity greater than that of the backing substrate.
36. (new) The article of claim 30 or 35, wherein the thread count is in the range of 9 yarns/inch to 18 yarns/inch.

Such articles are nowhere disclosed in Murphy. Murphy does not disclose or suggest an article having a porous backing substrate and a porous adhesive-carrying fabric applied to the backing substrate. There is no teaching in Murphy that of “a porous backing substrate” and a second layer that is “a porous adhesive-carrying fabric applied to the backing substrate.” There is no mention in Murphy of porosity of the layers in the articles disclosed therein. Murphy thus does not disclose a porous backing substrate and a porous adhesive-carrying fabric applied thereto. While Murphy states that a binder impregnates all three layers (col. 2:39-40), it says nothing about whether the layers are porous, particularly when the adhesive binder is applied.

Nor does Murphy disclose or suggest an article wherein the adhesive-carrying porous fabric has a porosity greater than that of the backing substrate. Because porosity of the layers is nowhere discussed, the relative porosities of the two layers also is not disclosed or suggested. Instead, Murphy simply state that the binder will impregnate all three layers.

In the Official Action, the layer of elastic strands labeled “16” in Figure 1 is “equated to” the porous backing substrate. Layer 16 in Figure 1, however, is not equivalent to and does not anticipate the porous backing substrate of the claimed invention. In Figure 1, layer 16 is the middle layer of a three-layer structure. This would not be a “backing substrate” as in the claimed invention. Whether layer 16 is porous is thus irrelevant. For anticipation, each element of the claimed invention must be present in the cited art. Murphy does not disclose or suggest a porous backing substrate, as instantly claimed.

Simply because it may overlap in thread count does not mean that the layer in Murphy is “a porous adhesive-carrying fabric applied to the backing substrate,” as required by claims 30 and 36. Murphy discloses, for example, a “top layer 12 of warp-knitted (weft insertion) fabric, a bottom layer 14 of spun bond nylon nonwoven, and a middle layer of longitudinally-extending, transversely spaced (about 12 per inch) elastic strands 16.” Examples of preferred materials are discussed at column 2:41 – column 3:5. Porosity of the layers is nowhere mentioned and cannot be assumed. Thus, the claimed article is not taught by Murphy and Murphy does not anticipate claims 30 and 36.

As such, withdrawal of the rejection of claims 30 and 36 over Murphy is respectfully requested. Such action is believed to be in order.

Rejection Under 35 U.S.C. §103(a) over Schueler

Claims 29, 31-34, 37-43 and 44 have been rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Schueler, U.S. Patent No. 2,740,403. This rejection is respectfully traversed.

In the Official Action, Schueler’s “backing” is equated with the porous backing substrate of the claims, and Schueler’s “carrier” is equated with the “porous adhesive-carrying fabric” of the claims (Office Action, p. 4). Schueler is said to disclose that the carrier layer may be woven, knitted or “otherwise formed to give an open-mesh fabric which is subjected to an impregnation treatment with the adhesive and then after the impregnation can also be given an additional coating on its outer surface and in any case in the result, so that by differential pressure treatment, striking off, doctoring, or otherwise, it still presents, although impregnated, a substantially porous structure (column 1 lines 56-65).” (Office Action, pp. 4-5). With respect to the backing layer, the Official Action states that Schueler discloses a “porous backing” that “is a closely woven fabric having say thread count of 100 yarns to the inch with openings between the yarns of 0.005 inch” and that while closely woven, the woven fabric “is pervious.” (Office Action, p. 5).

As acknowledged in the Official Action, Schueler does not disclose the a porous adhesive-carrying fabric having the particularly claimed ranges of open area, both prior to and following

application of the adhesive. The Official Action asserts, however, that the claimed ranges would have been obvious and routine skill in the art. (Official Action, p. 6). Applicant disagrees.

The Official Action asserts that the articles of both Schueler and Applicant include “a porous substrate and an adhesive carrying fabric applied onto a porous substrate.” (Official Action, p. 6). This assertion is in error. As stated in Applicant’s prior response, Schueler’s bandage is, at best, minimally porous. This arises from the backing and carrier fabrics used to construct the bandage. Specifically, Schueler discloses that the backing has 100 yarns per inch, and openings of 0.005” on each side (col. 2, lines 44-46). The diameter of each yarn is therefore 0.005”, and there is therefore 0.01” between the center of one opening and the center of the next opening. This results in a 25% open backing.

Schueler discloses that the carrier is a “similar fabric but more openly woven so that the spaces between the yarns have openings...of say some 0.01” side” (col. 2, lines 48-50). Schueler does not specifically disclose a yarn thickness, but Fig. 3 shows that the diameter of the yarns are the same as that of the yarns in the backing. This being so, the center-to-center distance of the openings is 0.015”, and the fabric has a thread count of about 67 yarns per inch. Therefore, the carrier is about 44% open.

This is the porosity before the adhesive is applied to the carrier. Schueler does not compare and is silent as to how porous or open the carrier is after the adhesive is applied to the fabric. However, the porosity of the carrier after application of the adhesive, even with additional treatment, necessarily can be no more than that of the carrier before application of the adhesive, i.e., will not be greater than 44% open. In fact, it is in reality far less.

In response to Applicant’s prior arguments, the Official Action asserts that “[w]hile it is true that the narrower teaching of Schueler does not anticipate Applicant’s invention, to the Examiner the overall teaching of Schueler does not preclude one of ordinary skill in the art from modifying his invention,” and that “when considered as a whole,” Schueler “suggests that both the porous backing and the fabric of the adhesive-carrying fabric should remain open.” (Official Action, page 9). These general teachings, however, do not teach or suggest the instantly claimed invention.

In response to Applicant's prior arguments, it is noted that Applicants assumed that the adhesive-carrying fabric is the same as that of the porous backing substrate, relying upon Figure 3. Schueler does not provide the thread count of the backing fabric. However, Schueler does state that the lower fabric is "a similar fabric but more openly woven so that the spaces between the yarns leave openings 9 of say some 0.01" side." (Schueler, col. 2:48-50). While the Official Action reminds Applicants that drawings cannot be relied upon to calculate the diameter of the yarns (Official Action, p. 10), it is noted that no other information is provided that could be used to calculate the yarn diameter. Based upon the limited teachings of Schueler, Applicant's chose a particular fabric that one skilled in the art would recognize best approximated the disclosure of Schueler. As noted in the MPEP, §716.02(e), "[w]here the comparison is not identical with the reference disclosure, deviations therefrom should be explained, *In re Finley*, 174 F.2d 130, 81 USPQ 383 (CCPA 1949), and if not explained should be noted and evaluated, and if significant, explanation should be required. *In re Armstrong*, 280 F.2d 132, 126 USPQ 281 (CCPA 1960) (deviations from example were inconsequential)." Here, the Miller Declaration does not "deviate" from the teachings of the reference. Instead, assumptions were made based upon the vague description in Schueler, and these assumptions were explained.

The teachings of Schueler are so general that it is impossible to determine what levels of porosity are even contemplated. This fact weighs against the claimed invention being obvious. The teachings of Schueler are so ambiguous that the claimed invention cannot possibly be obvious.

Prior to Applicant's invention, one skilled in the art would not have recognized that a truly breathable article should and could include a fabric having the claimed ranges of porosity both before and after application of the adhesive. While maintaining low porosity would be desirable, prior to the instant invention, a person skilled in the art did not recognize how, or that, such ranges of porosity could be achieved; what Applicant achieved was in fact unexpected. As recognized in the application, prior to the instant invention, additional processing steps were employed, for example, to improve porosity after applying the adhesive coatings. ("Thus, prior art processes have attempted to disrupt the continuity of the adhesive film coating to deposit a discontinuous film.

Adhesive-backed tapes have been perforated using needle-like points to mechanically pierce the adhesive-backed tape after the application of the adhesive coating. Gas streams directed onto regions of the adhesive-coated porous web have also been used to form perforations in the adhesive-coated web at predetermined positions.” (Application, p. 2)). Thus, the claimed invention of an article with a porous backing substrate and porous adhesive-carrying fabric both before and after coating with the adhesive is novel and nonobvious.

The Official Action further states that it “does not compare Applicant’s invention to the closest prior art of Schueler.” (Official Action, p. 11). However, as acknowledged in the Official Action, a fabric as disclosed in Schueler was not available.¹ Thus, a fabric was chosen that had the closest properties to that disclosed in Schueler. As stated *supra*, legal precedent allows for deviations so long as they are explained. *In re Finley*, 174 F.2d 130; *In re Armstrong*, 280 F.2d 132.

Thus, the deviations made by Applicant’s have been explained as being the closest comparison possible to done based upon the information available in Schueler and products available for use in testing.

As stated in Applicant’s prior response, the Miller Declaration shows that Schueler’s carrier, when impregnated, loses nearly all of its porosity. More specifically, the Declaration shows that impregnation of a woven cotton fabric comparable to the carrier disclosed by Schueler with a water based pressure sensitive adhesive almost completely closes the fabric’s openings or pores (See Miller Declaration, ¶ 12). Because the inter-yarn openings in Schueler’s carrier are so small, coating or impregnating the carrier with adhesive effectively closes the openings, and results in an adhesive carrier that has little open area or porosity. As the Declaration discusses, several factors that result from the small carrier openings can contribute to the closing of pores when impregnated with adhesive, including bridging of openings/pores by stray fibers and the swelling of yarns. (See Miller Declaration, ¶ 12). Because the openings are small to begin with, the presence of even a

¹ As stated in the Miller Declaration, ¶3, Mr. Miller attempted to obtain woven cotton fabric samples with about 67 yarns per inch in both the warp and weft directions. Such a cotton fabric was not found to be commercially available. Mr. Miller thus selected the material available that would be closest to the 67 yarns per inch material. It is further noted that no records were found for a 67 yarns per inch material having been previously commercially available.

small coating of adhesive on the surface of the yarns can significantly reduce their size and thus reduce the porosity of the coated fabric².

In contrast, the instantly claimed articles are highly porous, truly and effectively “breathable,” and thus allow moisture to vent away from the skin and allow air to contact the skin. In sharp contrast, the bandages disclosed by Schueler have minimal porosity at best, as evidenced both by Schueler’s disclosure and by Michael Miller’s Declaration. The instant claims reflect at least some of the structural features that give rise to such heightened porosity compared to that of Schueler’s article. Prior to Applicant’s invention, it would not have been obvious to modify Schueler to arrive at the specific requirements of the now-pending claims.

As stated in Applicant’s prior response Schueler does not teach or suggest:

- a. A porous adhesive-coated fabric that, after the application of adhesive thereto, has at least about 60% open area. (Claim 29 - After coating, the open area of Schueler’s carrier is negligible).
- b. A porous adhesive-coated fabric that has a thread count in at least one direction that is not more than 18 yarns per inch. (Claim 30 - Schueler has more than 66 yarns per inch; and, thus, far smaller openings in the fabric).
- c. A porous adhesive-coated fabric that, after the application of adhesive thereto, has an open area that is not more than about 10% to about 20% less than the open area of the fabric prior to the application of adhesive thereto; e.g., if the fabric is 80% open before adhesive is applied to it, it is not less than about 60% to about 70% open after the adhesive has been applied. (Claim 31 - Schuler’s adhesive greatly decreases the open area; the amount is unstated but it is far more than 20%).

² The Official Action states that the details such as yarn openings were not clearly visible in the photographs. The Miller Declaration describes in detail what was seen in the actual materials (see, e.g., ¶ 12). If it would be helpful to expedite prosecution, an interview with the Examiner could be scheduled to discuss and show the tested materials.

d. A porous adhesive-coated fabric that, prior to the application of adhesive thereto, has in the range of about 50% to about 95% open area (Claim 32 - The only carrier Schueler mentions is 44% open; and there is no suggestion that any more open carrier might be used).

e. A porous adhesive-coated fabric that, prior to application of adhesive thereto has in the range of about 50% to about 95% open area, and after the application of adhesive thereto has an open area that is not more than about 10% to about 20% less than the open area of the fabric prior to the application of adhesive thereto. (Claim 33 - Schueler starts with a fabric that is 44% open and the applied adhesive reduces the open area by far more than 20%).

Based on the above, Applicant submits that the pending claims are not obvious over Schueler or any modification thereof. There are fundamental differences between Schueler's bandage and the claimed articles, as described above and as shown in the Miller Declaration.

Schueler thus fails to render obvious the invention of claims 29, 31-34, 37-43 and 44. Withdrawal of this rejection is thus respectfully requested and believed to be in order.

Rejection Under 35 U.S.C. §103(a) over Schueler in view of Murphy

Claim 36 (previously claim 35) has been rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Schueler, U.S. Patent No. 2,740,403, further in view of Murphy et al, U.S. Patent No. 5,762,623. This rejection is respectfully traversed.

The failing of Schueler to disclose or suggest Applicant's claimed invention is described *supra*. Claim 36 requires that the porous adhesive-carrying fabric has a thread count in at least one direction that is not more than 18 yarns per inch. As noted in the Official Action, this feature is not disclosed in Schueler. Murphy is thus relied upon for this teaching. This combination of references, however, fails to disclose or even suggest the invention of claim 36.

Claim 36 depends from claim 33. For the reasons set forth above, Schueler fails to teach or suggest an article as defined by claim 36, wherein the article having a porous backing substrate; and a porous adhesive-carrying fabric applied to the backing substrate, wherein "the fabric prior to application of adhesive thereto having in the range of about 50% to about 95% open area, and after

the application of adhesive thereto having an open area that is not more than about 10% to about 20% less than the open area of the fabric prior to the application of adhesive thereto.” As noted above, Schueler’s carrier layer does not satisfy either the “before” or the “after” limitation of claim 36. Schueler’s carrier has less than “about 50% to about 95% open area” before coating, and, as the Miller Declaration demonstrates, coating a carrier such as Schueler’s with adhesive reduces its open area by significantly more than 20%. This is a direct result of the carrier’s structural features, including its low initial open area and the size of the openings in it.

Murphy does not remedy or overcome the deficiency of Schueler in disclosing or suggesting the article as claimed. Murphy does not, for example, teach that the porous adhesive-carrying fabric applied to the backing substrate, “prior to application of adhesive thereto having in the range of about 50% to about 95% open area, and after the application of adhesive thereto having an open area that is not more than about 10% to about 20% less than the open area of the fabric prior to the application of adhesive thereto.”

The combination of Schueler and Murphy thus fails to render obvious the invention of claim 36. Withdrawal of this rejection is thus respectfully requested and believed to be in order.

Rejection Based on Obviousness-type Double Patenting

Claims 29-44 have been provisionally rejected on the ground of nonstatutory obviousness-type double patenting as allegedly being unpatentable over claims 5-8, 17, 28, 29 and 31 of copending Application No. 11/204,736. Applicant respectfully traverses this rejection as the claims of neither application are in their final form. If the Examiner finds the instant claims to be in condition for allowance other than for an obviousness-type double patenting rejection over one or more claims of copending Application No. 11/204,736, Applicant will then consider submitting a terminal disclaimer to obviate the rejection at that time.

Conclusion

In view of the above, claims 29-44 are believed to be in condition for allowance. Further and favorable action in that regard is respectfully requested and believed to be in order.

Should there be any questions or concerns regarding this response or the application, please contact the undersigned attorney at the telephone number identified below.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 08-0219, under Order No. 0003317.00126US1 from which the undersigned is authorized to draw.

Respectfully submitted,

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